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Claims 29, 30, and 35-43 are pending in the application.

Response to Rejection of Claims Under 35 U.S.C. §103Claim 29

Claim 29 is directed to a method of applying an elongate member to a substrate. The method comprises the steps of:

moving the substrate in a flow direction thereof;

feeding the elongate member to a guide capable of guiding the elongate member onto the substrate along a securement path, the guide being supported by a guide assembly for conjoint lateral movement therewith relative to the flow direction of the substrate;

moving the guide assembly laterally relative to the flow direction of the substrate so that at least a portion of the securement path extends generally oblique to the flow direction of the substrate;

moving the guide relative to the guide assembly to vary the position of the elongate member transversely within the securement path as the elongate member is guided onto the substrate; and

securing the elongate member to the substrate.

Claim 29 is submitted to be nonobvious and patentable over the references of record, and in particular WO 90/09159 (Heikkila) in view of U.S. Patent No. 5,500,075 (Herrmann), in that whether considered alone or in combination the references fail to disclose a method of applying an elongate member to a substrate including the steps of moving a guide assembly laterally relative to a flow direction of a substrate so that

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at least a portion of a securement path of an elongate member extends generally oblique to the flow direction of the substrate and moving a guide relative to the guide assembly to vary the position of the elongate member transversely within the securement path as the elongate member is guided onto the substrate.

Heikkila, the primary reference relied upon in the Office action, discloses a diaper comprising a liquid-impermeable outer layer 1, a liquid-permeable body-facing layer 2, and an elongated suction pad 3 disposed between the outer and body-facing layers. Elastic bands 4, 5 are secured to one of the layers such that they are positioned between the outer edge of the layer to which they are attached and the suction pad 3. Heikkila discloses the elastic bands as extending longitudinally in a direction with portions extending tangent to the suction pad 3. That is, the securement paths of the elastic bands vary laterally along their length.

In setting forth the method for making the diaper, Heikkila discloses that the surface layers 1 and 2 are fed in web form and the suction pads are attached by gluing. "The elastic bands 4 and 5 are then fastened by gluing or hot sealing beside the suction pads according to the principles of the invention." See page 6, lines 28-34. As recognized in the Office action, Heikkila fail to disclose or suggest any process whatsoever for laying the elastic bands in the desired securement path and pattern.

Heikkila thus fail to disclose at least the steps of feeding the elongate member to a guide capable of guiding the elongate member onto the substrate along a securement path, moving the guide assembly laterally relative to the flow

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direction of the substrate so that at least a portion of the securement path extends generally oblique to the flow direction of the substrate, and moving the guide relative to the guide assembly to vary the position of the elongate member transversely within the securement path as the elongate member is guided onto the substrate, all as recited in claim 29.

In the absence of any disclosure by Heikkila as to how the elastic bands are applied, the Office action still takes the position that the elastic bands are oscillated within the securement paths to define a zigzag orientation. Applicants respectfully disagree. Rather, applicants submit that the elastic bands 4, shown in the various drawings of Heikkila are coiled, e.g., in a spiral orientation. In particular, Heikkila discloses at page 5, lines 33-35 thereof, that the elastic bands 4, 5 are shown as "loosely curled band sections." The "zigzag" path referred to at page 5, lines 12-17, refers to the bending overall securement path (e.g., the varying lateral position of the path) of the bands and not to the orientation of the bands within the securement path.

Moreover, Heikkila fail to make any mention that the bands are "oscillated" as characterized in the Office action. Indeed, there is no disclosure whatsoever by Heikkila as to how the orientations of the bands are formed. Additionally, there is no distinct or otherwise identifiable pattern to the elastic bands within their respective securement paths. Rather, the elastic bands appear to have more of a random orientation within the securement path.

Herrmann discloses an apparatus and a method for applying sets of elastic bands 20, 22 in a curved pattern to a backing material 14 for use in a diaper or training pants. With

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reference to Fig. 1 and in particular Fig. 15 of Herrmann as cited in the Office action, a backing sheet 14 is moved along a flow path 16 past an adhesive applicator 31 for applying adhesive for securing an absorbent pad and sets of elastic bands 20, 22 to the backing sheet. The sets of elastic bands 20, 22 are fed to the backing sheet by feeder heads 53, 54 mounted on one end to swing arms 50, 52. In the embodiment shown in Fig. 15, swing arm 50f is pivotally affixed at one end to a support member and the feeder head 53f is pivotally connected to the distal end of the swing arm by vertical pivot shaft 108f. As disclosed at column 10, lines 48-55, such a configuration allows the feeder head 53f to freely pivot by the tension of elastic bands 20a-d as the feeder head 53f moves laterally across the flow path of the backsheet. The pivoting is such that the elastic bands 20a-d generally always extend perpendicular to the aperture line 107f (Fig. 16).

Hermann clearly shows in Fig. 15 (as well as in all other embodiments therein) that while the securement path of the bands varies transversely, the bands 20a-d themselves do not vary in position transversely within the securement path as the bands are guided onto the substrate as recited in claim 29. There is clearly no suggestion made by Herrmann for varying the position of the bands 20a-d by pivoting the feeder head 50f relative to the swing arm 50. In fact, the position of the bands 20a-d cannot be varied transversely within the securement path using the feeder head 53f shown in Fig. 15 of Herrmann. The free pivoting of the feeder head 53f relative to the swing arm 50 only allows the feeder head 53f to maintain the bands 20a-d perpendicular to the feeder head 53f as the swing arm moves laterally. Thus, where the swing arm stays in one

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lateral position, the feeder head 53f will not pivot relative to the swing arm to vary the position of the bands within the securement path. Even when the swing arm is moving laterally, the feeder head 53f pivots only enough to correct the perpendicular orientation of the elastic bands relative to the feeder head. However, the feeder head 53f cannot pivot (e.g., back and forth) relative to the swing arm 50 to vary the transverse position of the elastic bands within their securement path.

In other embodiments disclosed by Hermann, such as in Fig. 8, the feeder head 53c is pivotally connected to the swing arm 50c with a torsion spring 112 biasing the feeder head 53c to normally orient the elastic bands relative to the feeder head (e.g., along the aperture line 107). This embodiment operates substantially as described above, and because of the torsion spring the feeder head 53c cannot pivot relative to the swing arm in a manner such that position of the bands varies transversely within the securement path of the bands.

Thus, like Heikkila, Hermann fails to disclose or suggest moving a guide relative to a guide assembly to vary the position of the elongate member transversely within the securement path as the elongate member is guided onto the substrate as recited in claim 29.

Because Hermann and Heikkila each fail to show or suggest a method of applying an elongate member to a substrate including moving the guide relative to the guide assembly to vary the position of the elongate member transversely within the securement path as the elongate member is guided onto the substrate, a combination of these references would similarly fail to show or suggest such a feature. Thus, Hermann and

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Heikkila cannot be combined to show or suggest all of the features recited in claim 29.

For these reasons, claim 29 is submitted to be nonobvious and patentable over the references of record.

Claim 30

Claim 30, which depends from claim 29, further recites that the guide moving step comprises moving the guide relative to the guide assembly to guide the elongate member onto the substrate generally in a periodic wave pattern within the securement path. The Office has taken the position that Figures 1 and 2 of Heikkila show elastic bands having a zigzag or wave pattern. Applicants respectfully disagree. Rather, as discussed above, it is submitted that Heikkila teaches applying an elastic band to a substrate in a curled or spiraled configuration. The elastic bands shown in Heikkila also lack any identifiable pattern, and most certainly the bands are not in a periodic wave pattern. Rather, the pattern of Heikkila is rather random.

For these additional reasons, claim 30 is further submitted to be patentable over the references of record.

Claim 36

Claim 36, which indirectly depends from claim 29, further recites, in pertinent part, moving first and second guides relative to the guide assembly to guide the elongate members onto the substrate such that the elongate members cross each other at least once along said securement path. There is clearly no disclosure found in either Heikkila or Hermann of such a feature. In particular, as discussed above, Heikkila

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fails to disclosure any apparatus or process whatsoever for applying the elastic bands to the sheet. The teachings of Hermann are limited to only a single feeder head on each swing arm. Thus, the only way for the elastic bands of Hermann to cross each other would be for the feeder head to rotate to an orientation in which the bands exit the feeder head transverse to the path of movement of the sheet. Clearly there is no disclosure in Hermann for rotating the feeder head in such a manner.

Because each of the references fails to disclose moving first and second guide members relative to the guide assembly so that the elongate members cross each other at least once along the securement path, a combination of the references would similarly fail to disclose such a feature.

For these additional reasons, claim 36 is further submitted to be patentable over the references of record.

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Conclusion

In view of the above, favorable reconsideration and allowance of claims 29, 30, and 35-43 is respectfully requested.

Respectfully submitted,



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